

# CF MOUSE SURVIVAL IS IMPROVED BY LENTIVIRAL CFTR AIRWAY GENE TRANSFER

Women & Children's Hospital

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## Introduction

We have shown that long term (> 12 month) partial CFTR correction can be achieved in timed-release airway tissues in CF mice treated with a lentiviral (LV) vector. In this gene transfer study a repeated-measures study was used to extend our ability to determine the effects of CFTR gene correction in individual CF mice.

## Materials

Male and female CF mice (*cftr<sup>ΔF508</sup>*) were used in this study. Open experiments condition. Control animals were pre-treated with 400 µg/kg daily surfactant lysophosphatidylcholine (LPC, 0.3%, 4 µl) prior to a lentiviral (20 µl) vector that contained no gene (LV-MT, n=8), or with a saline (PBS, 4 µl). CFTR, n=8). The primary treatment group received LPC prior to LV-CFTR (n=12). Survival analysis of the ΔPD<sub>50</sub> (0.25 to 0.5 to 0.75 to 1.0 to 1.25 to 1.5 to 1.75 to 2.0 to 2.25 to 2.5 to 2.75 to 3.0 to 3.25 to 3.5 to 3.75 to 4.0 to 4.25 to 4.5 to 4.75 to 5.0 to 5.25 to 5.5 to 5.75 to 6.0 to 6.25 to 6.5 to 6.75 to 7.0 to 7.25 to 7.5 to 7.75 to 8.0 to 8.25 to 8.5 to 8.75 to 9.0 to 9.25 to 9.5 to 9.75 to 10.0 to 10.25 to 10.5 to 10.75 to 11.0 to 11.25 to 11.5 to 11.75 to 12.0 to 12.25 to 12.5 to 12.75 to 13.0 to 13.25 to 13.5 to 13.75 to 14.0 to 14.25 to 14.5 to 14.75 to 15.0 to 15.25 to 15.5 to 15.75 to 16.0 to 16.25 to 16.5 to 16.75 to 17.0 to 17.25 to 17.5 to 17.75 to 18.0 to 18.25 to 18.5 to 18.75 to 19.0 to 19.25 to 19.5 to 19.75 to 20.0 to 20.25 to 20.5 to 20.75 to 21.0 to 21.25 to 21.5 to 21.75 to 22.0 to 22.25 to 22.5 to 22.75 to 23.0 to 23.25 to 23.5 to 23.75 to 24.0 to 24.25 to 24.5 to 24.75 to 25.0 to 25.25 to 25.5 to 25.75 to 26.0 to 26.25 to 26.5 to 26.75 to 27.0 to 27.25 to 27.5 to 27.75 to 28.0 to 28.25 to 28.5 to 28.75 to 29.0 to 29.25 to 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142.0 to 142.25 to 142.5 to 142.75 to 143.0 to 143.25 to 143.5 to 143.75 to 144.0 to 144.25 to 144.5 to 144.75 to 145.0 to 145.25 to 145.5 to 145.75 to 146.0 to 146.25 to 146.5 to 146.75 to 147.0 to 147.25 to 147.5 to 147.75 to 148.0 to 148.25 to 148.5 to 148.75 to 149.0 to 149.25 to 149.5 to 149.75 to 150.0 to 150.25 to 150.5 to 150.75 to 151.0 to 151.25 to 151.5 to 151.75 to 152.0 to 152.25 to 152.5 to 152.75 to 153.0 to 153.25 to 153.5 to 153.75 to 154.0 to 154.25 to 154.5 to 154.75 to 155.0 to 155.25 to 155.5 to 155.75 to 156.0 to 156.25 to 156.5 to 156.75 to 157.0 to 157.25 to 157.5 to 157.75 to 158.0 to 158.25 to 158.5 to 158.75 to 159.0 to 159.25 to 159.5 to 159.75 to 160.0 to 160.25 to 160.5 to 160.75 to 161.0 to 161.25 to 161.5 to 161.75 to 162.0 to 162.25 to 162.5 to 162.75 to 163.0 to 163.25 to 163.5 to 163.75 to 164.0 to 164.25 to 164.5 to 164.75 to 165.0 to 165.25 to 165.5 to 165.75 to 166.0 to 166.25 to 166.5 to 166.75 to 167.0 to 167.25 to 167.5 to 167.75 to 168.0 to 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194.5 to 194.75 to 195.0 to 195.25 to 195.5 to 195.75 to 196.0 to 196.25 to 196.5 to 196.75 to 197.0 to 197.25 to 197.5 to 197.75 to 198.0 to 198.25 to 198.5 to 198.75 to 199.0 to 199.25 to 199.5 to 199.75 to 200.0 to 200.25 to 200.5 to 200.75 to 201.0 to 201.25 to 201.5 to 201.75 to 202.0 to 202.25 to 202.5 to 202.75 to 203.0 to 203.25 to 203.5 to 203.75 to 204.0 to 204.25 to 204.5 to 204.75 to 205.0 to 205.25 to 205.5 to 205.75 to 206.0 to 206.25 to 206.5 to 206.75 to 207.0 to 207.25 to 207.5 to 207.75 to 208.0 to 208.25 to 208.5 to 208.75 to 209.0 to 209.25 to 209.5 to 209.75 to 210.0 to 210.25 to 210.5 to 210.75 to 211.0 to 211.25 to 211.5 to 211.75 to 212.0 to 212.25 to 212.5 to 212.75 to 213.0 to 213.25 to 213.5 to 213.75 to 214.0 to 214.25 to 214.5 to 214.75 to 215.0 to 215.25 to 215.5 to 215.75 to 216.0 to 216.25 to 216.5 to 216.75 to 217.0 to 217.25 to 217.5 to 217.75 to 218.0 to 218.25 to 218.5 to 218.75 to 219.0 to 219.25 to 219.5 to 219.75 to 220.0 to 220.25 to 220.5 to 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